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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,905	10/20/2004	Christian Wengerter	L7725.04105	8666
24257	7590	12/13/2005		
STEVENS DAVIS MILLER & MOSHER, LLP 1615 L STREET, NW SUITE 850 WASHINGTON, DC 20036				
			EXAMINER GHEBRETINSAE, TEMESGHEN	
			ART UNIT 2637	PAPER NUMBER

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

OK

<b>Office Action Summary</b>	Application No. 10/501,905	Applicant(s) WENGERTER ET AL.	
	Examiner Temesghen Ghebretinsae	Art Unit 2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 15-21 is/are rejected.
- 7) ☒ Claim(s) 5-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/20/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

### **DETAILED ACTION**

1. It would be of great assistance to the Office if all incoming papers pertaining to a filed application carried the following items:

1. Application number (checked for accuracy, including series code and serial no.).
2. Group art unit number (copied from most recent Office communication).
3. Filing date.
4. Name of the examiner who prepared the most recent Office action.
5. Title of invention.
6. Confirmation number (See MPEP § 503).

### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

3. The examiner has considered the IDS filed 7/20/04.

### ***Claim Objections***

4. Claims 5-14 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1,4,15-17 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Onggosanusi et al (US2003/0048857 A1).

Onggosanusi discloses a method for transmitting data in wireless communication system from a transmitter to a receiver comprising the steps of: modulating data at the transmitter using first signal constellation (symbol mapping S1) to obtain a first data symbol; transmitting the first data symbol to the receiver over first diversity branch; modulating data at the transmitter using a second signal constellation (symbol mapping S2) to obtain a second data symbol; transmitting the second data to the receiver over second diversity branch; (see fig.3 page 8, paragraph (0110)) demodulating the received first and second data at the receiver using first and second signal constellation; and diversity combining the demodulated data (see fig.4, paragraph (0111 to 0116)). The symbol mappers may provide multiple constellations for dynamic adaptation.

7. Claims 1,4,15-17,19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Riazi et al. (6,580,705).

Riazi discloses a method for transmitting data in wireless communication system from a transmitter to a receiver comprising the steps of: modulating data at the transmitter using first signal constellation (QPSK) to obtain a first data symbol; transmitting the first data symbol to the receiver over first branch; modulating data at the transmitter using a second signal constellation (DQPSK) to obtain a

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second data symbol; transmitting the second data to the receiver over second branch; (see fig.1 col. 3, line 29 to col.4 line 15) demodulating the received first and second data at the receiver using first and second signal constellation; and diversity combining the demodulated data (see fig.2 col.4, line 16- to col.5, line 15).

8. Claims 1-3,15,17-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Lundby et al (6,356,528).

Lundby discloses a transmitter for transmitting data in a wireless communication system to a receiver, comprising: a modulation for modulating data using a first signal constellation to obtain a first data (126); a transmitter unit for transmitting the first data to a receiver using a first diversity branch (4); modulating the data using a second signal constellation to obtain a second data (128); transmitting the second data using a second diversity branch (6); a FEC encoder (102); a receiver (202) for receiving the first and second data; a demapping (207)(demodulating) for demodulating the first and second data; and a combining unit (220) for combining the received data; a FEC decoder(222).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Temesghen Ghebretinsae whose telephone number is 571-272-3017. The examiner can normally be reached on Monday-Friday from 8 to 6. The examiner can also be reached on alternate .

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel, can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

T.G.

12/9/05.

Temesghen Ghebretinsae  
Primary Examiner  
Art Unit 2637

TEMESGHEN GHEBRETINSAE  
PRIMARY EXAMINER  
12/9/05